

California Department of Corrections / Mule Creek State Prison
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and is sampled for the same parameters compiled in the weekly monitoring report. Inspectors Scavello and Tinger walked the length of the drainage channel shown in PHOTO 14 and PHOTO 15, which was not flowing but contained water.

PHOTO 16 shows the MS4 point of compliance for the MCSP-3 sample point. At the MCSP-3 sample point Inspector Scavello and Mr. Stark discussed sampling protocols. Mr. Stark explained that this sample is taken at a consistent point just downstream off of the bridge shown in the photo, and that either he or another trained operator collects a grab sample. Mr. Stark explained that training for new sampling requirements under the MS4 program are being disseminated to all operators.

PHOTO 17 shows the MCSP-3 sample point. APPENDIX 2 shows the surface drainage route from the main outfall to MCSP-3. Mule Creek connects to the MCSP drainage area shortly after the bridge shown in the background of PHOTO 17 at an estimated distance of 300 feet from sample point MCSP-3. The drainage channel in this area had wet soil but no consistent standing water at the time of inspection.

Main Junction Vault/Main Outfall/MCSP-6

PHOTO 18 shows the main junction vault, PHOTO 19 shows the main outfall, and PHOTO 20 shows the MCSP drainage channel reach directly after the main outfall. Mr. Hudgens explained that 45 acres drain to the main junction vault, and that the distance is approximately 1500' from the main outfall to MCSP-3. Mr. Hudgens also explained that major construction work on the main junction vault was completed at the end of 2019, and that this construction consisted of adding three new walls to the vault. Mr. Larabee explained that prior to this construction work the main junction vault was an open pit on the three sides that with one headwall and the two slide gates. At the time of inspection, the drainage pipes terminating into the main junction vault had no flow and both slide gates were closed (PHOTO 18).

At the main outfall, there was a small amount of flow exiting both pipes. Mr. Hudgens explained that this flow, as with the secondary outfall, is from the small amount of water that is able to seep under the slide gates. EPA Inspectors were informed that the only sampling at this outfall point is via the ISCO sampler shown in PHOTO 19 and results are included in the weekly SHN report.

Delivery Yard

EPA Inspectors viewed the delivery yard, where trucks of various sizes transport various materials for prison operations to and from the facility. At the time of inspection there were no trucks entering or exiting the delivery yard. Mr. Hudgens explained that there are six drop inlets which collect stormwater in the delivery yard. Inspector Scavello asked MCSP staff where spill

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kits for cleaning up delivery yard spills were located, and staff were not able to pinpoint the exact location. Inspector Scavello asked the staff to explain the spill response procedures if a spill occurs in the yard, and MCSP staff provided a step by step process in which a trained MCSP staff member responds to clean the spill up first if they are able to, and that the fire department responds either simultaneously to MCSP staff or directly after MCSP staff. Mr. Hudgens pointed out the location of the fire department, which is located approximately 200 feet from the yard.

Wastewater Treatment Plant Headworks

PHOTOS 1-6 show the headworks of the treatment plant at MCSP. At the time of inspection, both in-channel grinders and mechanical bar screens shown in PHOTOS 1-5 were operating. Mr. Orta explained that the grinders and bar screens are essential to wastewater treatment at MCSP because prisoners flush various types of trash down prison toilets. Mr. Orta stated that screens are replaced every 3-4 months, and the whole assembly is occasionally replaced. Mr. Orta explained that an influent sample is taken at the top of the headworks, and the emergency channel (PHOTO 6) can be opened manually if additional flow capacity is needed or if one of the grinders or bar screens becomes inoperable.

Pump Station

The inspection continued at the pump station located adjacent to the wastewater treatment plant (PHOTOS 21-22). Mr. Stark explained that this pump station collects water from the MCIC and transfers it to the wastewater treatment plant. Chopper pumps cut up trash prior to flowing this water to the headworks. Inspector Scavello discussed a sanitary sewer overflow (SSO) which was reported on August 11, 2020 with Mr. Fregeau and Mr. Stark. A portion of this spill report form used by MCSP and the spill notification report sent to the Regional Board is shown as APPENDIX 7 below.

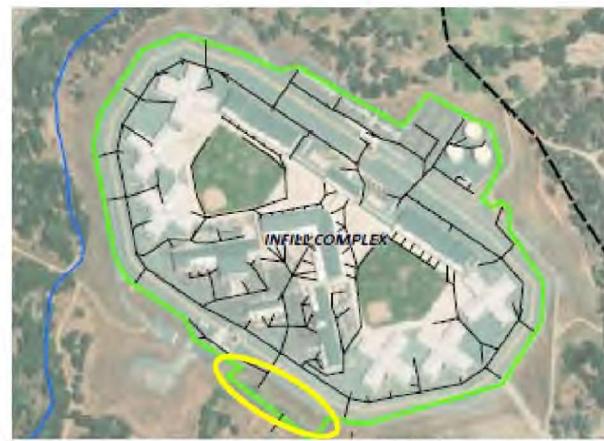
Mr. Fregeau and Mr. Stark explained that it was determined that faulty code in the operating system for the knife gate shown in PHOTO 23 caused the gate to remain in the 'closed' position while the pump station was pumping, triggering the SSO. At the time of the SSO, Mr. Fregeau explained that Facility practice was to leave the emergency valve in the berm shown in PHOTO 24 in the 'open' position during summer months. The SSO flowed through the open valve to the areas shown in PHOTO 25 and PHOTO 26, and a vac truck was used to recover an estimated 11,100 gallons that were not absorbed into the creek bed shown in PHOTO 26. Mr. Fregeau's spill report notes the total spill estimate as 42,227 gallons based on previous day "normal" flow, and that based on SCADA data the "PLC for MCIC faulted at 7:00PM on Monday, August 10th, 2020. It was not discovered till Tuesday, August 11th, 2020; approximately 11:15AM". After the inspection, Inspector Scavello verified that this information matched reporting in Cal OES. The spill was reported in Cal OES as control #20-4297.

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As a result of this spill, Mr. Fregeau explained that the emergency valve in PHOTO 24 is now kept in the 'closed' position, and the knife gate is kept in the 'open' position as shown in PHOTO 23. Inspector Scavello verified that the valve was closed and knife gate was open at the time of inspection. Mr. Fregeau also explained that since this spill the mobile pump seen in PHOTO 22 is staged at the pump station in case of emergency.

Stormwater Settling Pond

Mr. Stark explained that the stormwater settling pond shown circled in yellow on the map at right and pictured in PHOTO 27 collects stormwater from the MCIC yard and building areas. Mr. Hudgens explained that the settling pond was constructed in 2016 simultaneous with MCIC construction. The settling pond contains an overflow pipe, which the 2020 MCSP Sewer System Management Plan (SSMP) notes drains to Mule Creek once the pond has reached approximately half capacity⁵. At the time of inspection, the water level was far below entering the overflow pipe. The pond appeared to be structurally sound at the time of inspection.

***Wastewater Treatment Plant***

After wastewater passes through the in-channel grinder and bar screens described earlier, an influent pipe delivers wastewater to the oxidation ditch (PHOTO 28). At the time of inspection, the aerators pictured were running alternately. Mr. Stark explained that the high-powered additional pumps shown in PHOTO 28 are generally not used, as they increase flow velocity to too high a rate. He explained that all aerators operate year-round. Mr. Stark explained that the wastewater flows around the oxidation ditch curve shown in PHOTO 29 to a splitter box, and that wastewater can be directed to clarifier #1, #2, or #3. At the time of inspection all flow was being directed to clarifier #3. Mr. Stark informed the EPA inspectors that MCSP staff was working on guide arm maintenance on clarifiers #1 and #2. Clarifiers #1 and #2 were not operating at the time of inspection. PHOTO 30 shows the condition of wastewater in clarifier #3, which appeared to be operating in good repair. PHOTO 31 shows clarifier #2. PHOTO 32 and PHOTO 33 show the full extent of the oxidation, aeration, and clarifying operation at the wastewater treatment plant.

⁵ 2020 Mule Creek Sewer System Management Plan, page 13.

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Mr. Stark explained that in warmer months, sludge is sent to the drying beds shown in PHOTO 34, and in the winter months that sludge is pressed using the belt press shown in PHOTO 35 and placed into a dumpster for removal. Mr. Stark commented that average daily flow at the wastewater plant is 480,000-520,000 gallons per day⁶, and that the plant usually wastes 10,000-15,000 gallons of sludge per day. Mr. Stark explained that residual wastewater from the drying beds flows back to the oxidation ditch.

After the wastewater is clarified, it enters the chlorine contact chamber shown in PHOTO 36. Mr. Stark commented that average flow time for wastewater in the chlorine contact chamber is 1.5 hours. As stated in the WDR, treated wastewater is sent to MCSP Reservoir, Preston Reservoir, Castle Oaks Reclamation Plant for reuse/land application, or disposed of via land application areas on-site within the MCSP.

Irrigation LAAs

The WDR states that the total area of LAAs (aka sprayfields) was 260 acres prior to construction of the MCIC complex, and that 57 acres of LAAs were lost due to construction of the MCIC. There are currently seven LAAs in operation at the Facility. As noted in the WDR, CDCR proposed the addition of LAAs #8-11, however as of the date of inspection these LAAs have not been installed. An August 13, 2018 NOV issued by the Regional Board notes various deficient reporting and other issues related to possible nutrient loading and overapplication of wastewater to LAAs, and Attachment B of Regional Board proposed July 2020 order R5-2020-XXXX includes plans for an Enhanced Compliance Action with two goals: to eliminate non-storm water flow resulting from landscape irrigation from entering the storm water collection system at MCSP, and reduction of the amount of potable water utilized in landscape irrigation.

EPA Inspectors Scavello and Tinger and other inspection attendees viewed LAA #7, the nearest adjacent LAA location to the Mule Creek discharge point (PHOTO 37). At the time of inspection, the field was not being irrigated. Mr. Stark explained that the LAA was last irrigated one week prior to the inspection, and that when a field is being irrigated sprinklers run until the field is saturated to the point that a visual determination is made that no ponded (i.e. standing) water will be present 24 hours after irrigation is stopped. MCSP staff explained that irrigation frequency is intermittent based on the volume of treated wastewater present in the storage pond and weather conditions, and that fields are irrigated in rotations according to the WDR guidelines. Mr. Hudgens explained that the sprinklers at MCSP LAAs are designed with a 40-foot setback from a road and a 60-foot setback from waterways. This distance is measured from the edge of where the LAA sprinkler is spraying water to the road or waterway.

⁶ WDR R5-2015-0129 lists an average dry flow limit of 0.74 million gallons per day (MGD), peak wet weather flow of 2.2MGD, and total annual flow limit of 274MG.

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Outfall Connection to Mule Creek

After a closing conference with MCSP staff in which initial areas of concern were discussed, Inspectors Scavello and Tinger and Regional Board staff inspected Mule Creek immediately downstream from the surface drainage area where stormwater exits MCSP and connects to Mule Creek. This area is shown in PHOTO 38 and PHOTO 39, and is located underneath the bridge overpass of CA-104 approximately 20 feet southwest from sample point MCSP4/RW. Water was not flowing at the time of inspection, and pooled water under the bridge area was muddy with no foam.

SECTION IV – AREAS OF CONCERN

The presentation of areas of concern does not constitute a formal compliance determination or violation.

1. Potential commingling of waters between the stormwater and wastewater systems-

The October 2019 report by SHN titled *Revised Stormwater Collection System Investigation Report of Findings* includes a list of hundreds of defects in both the MCSP stormwater system and the sanitary sewer system. As these defects have not been addressed, the potential for commingling of stormwater and sanitary sewer waters may exist, as both systems are aging and built very close to each other. Per the WDR, discharge of non-stormwater via the stormwater system constitutes an unpermitted discharge. The response Mr. Fregeau provided to EPA after the inspection notes that "Mule Creek is in the process of preparing a Special Repair Project to address issues identified in the 2018 Storm Water Investigation report of findings. For example damaged sewer piping and storm drain piping." Additionally, the Regional Board summarized in a Technical Memo⁷ approximately 600 water samples MCSP collected from the stormwater system, and documented elevated levels of multiple pollutants which indicate contamination of the storm sewer system and discharges that exceed water quality standards. Without addressing these issues, the potential commingling and subsequent discharge of sewage through the stormwater system to Mule Creek exists.

2. Pumps diverting stormwater back to the wastewater treatment plant -As a result of the California Regional Water Board 13 267 Order, MCSP currently has two pumps in use at the main junction vault and two pumps in use at the secondary junction vault which pump water back to the wastewater treatment plant if a storm event is anticipated to overwhelm the junction vault. EPA views this as a temporary fix to address capacity issues which were first reported to the Regional Board in December 2017. On March 15, 2018, consulting firm KSN, Inc. provided a report to MCSP which noted that the practice of introducing intermittent, elevated flows to the wastewater treatment plant could result in a reduction in Biological Oxygen Demand (BOD),

⁷ "Review of Revised Storm Water System Investigation Findings Report, California Department of Corrections and Rehabilitation, Mule Creek State Prison, Amador County" from Kenny Croyle, Water Resource Control Engineer, December 7, 2020.

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decreased residence time in the oxidation ditch, variable sludge return rates, and changes in suspended solids concentration and settling characteristics, amongst other possible changes, especially in winter months. The continued practice of pumping stormwater to the wastewater treatment plant could continue to impact wastewater treatment plant performance and result in noncompliance with the WDR. These potential impacts are acknowledged in MCSP's post-inspection response to EPA, and MCSP's response is presented as APPENDIX 5.

3. **Slide gates do not prevent flow to the main or secondary outfall-** Both sets of slide gates at the main junction vault and secondary junction vault do not fully seal when in the "closed" position, allowing water to pass through the gates to the outfall. Potentially commingled and contaminated waters could flow to the outfall unchecked. Unpermitted discharge reaching Mule Creek could result in a violation of the WDR or MS4 Permit.
4. **Non-stormwater discharge of irrigation water-** A revised Regional Board 13 383 Order dated December 22, 2020 notes that "Recent weekly monitoring reports document large volumes of irrigation water being discharged through the Facility's MS4 into Mule Creek", and that discharge of large volumes of non-stormwater through the MS4 is prohibited. During the inspection, EPA Inspectors discussed irrigation of the prison yards with MCSP staff. Staff stated that prison yard irrigation water flows to the two outfalls at the Facility. Continued excessive discharge of irrigation water to the MS4 could result in a violation of the MS4 Permit.
5. **Incomplete spill reporting data-** The Spill Notification Report shown in Appendix 7 notes a spill start time of 7:00PM on Monday, August 10th, 2020 and discovery/stoppage at 11:15AM on Tuesday, August 11th. The "estimated volume spilled" section of the report notes "Based on previous day flows I estimate we were under the "normal" flow amount about 42,227 gallons." This description is non-specific and does not allow a reader reviewing the report to know what flow is being referenced, or what a "normal flow" is. By not specifying the source of flow or what constitutes a normal flow, it is not possible for the reader to verify the accuracy of the spill amount. Also, the "corrective actions" section of the report lists installation of a float activated standalone alarm system to prevent a similar spill from occurring. At the time of inspection EPA Inspectors did not observe this corrective action in place and operable.
6. **Impacts of cold weather on uncovered wastewater treatment plant-** As acknowledged by MCSP staff during the inspection, the lack of cover over the wastewater treatment plant has the potential to reduce biological effectiveness during winter months.
7. **Spill kit location in the delivery yard-** When asked about the location of spill kits and cleanup procedures should a spill occur in the delivery yard, MCSP staff was not able to tell EPA Inspectors the location. Though MCSP staff was able to walk EPA Inspectors through the spill response process, staff working in the yard should be familiar with emergency spill kit materials and trained in their use should the need arise.
8. **MS4 Program Training for Employees-** It is essential that all staff receive training adequate to help the Facility comply with all programmatic requirements. This includes sampling protocols, reporting, eliminating non-stormwater discharges, and best management practices within the industrial areas to prevent spills. While this training

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appears to be underway, planning for future staff needs and refresher training is critical to maintaining a successful program.

SECTION V. SINGLE EVENT VIOLATIONS

Were any Single Event Violations (SEV) Observed?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
If Yes Describe SEV:	SEV CODE	

APPENDICES

Appendix 1 – Main Complex Drainage Areas Map – From SHN Report , *Revised Stormwater Collection System Investigation Report of Findings* p.131.

Appendix 2 – Site plan showing monitoring points – From SHN Report, *Weekly Status Report (week ending November 20, 2020)*, p.2

Appendix 3 – Photo log location key

Appendix 4 – Photo log

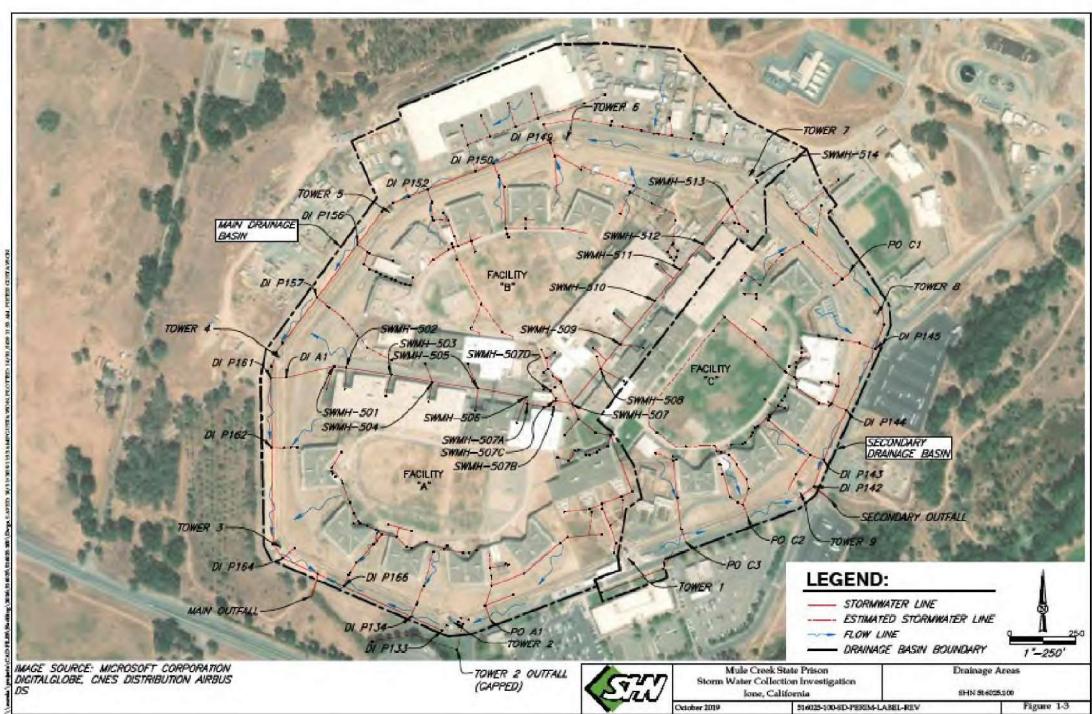
Appendix 5 – MCSP Response to EPA requesting documentation on how 3/10" in 24hrs or 1/10" hour were determined as rates to trigger opening of slide gates during a rain event

Appendix 6 – Excerpt of SHN Weekly Status Report – Week ending November 20, 2020

Appendix 7 - Excerpt of Spill Report Form and Spill Notification Report from August 11, 2020 spill at pump station

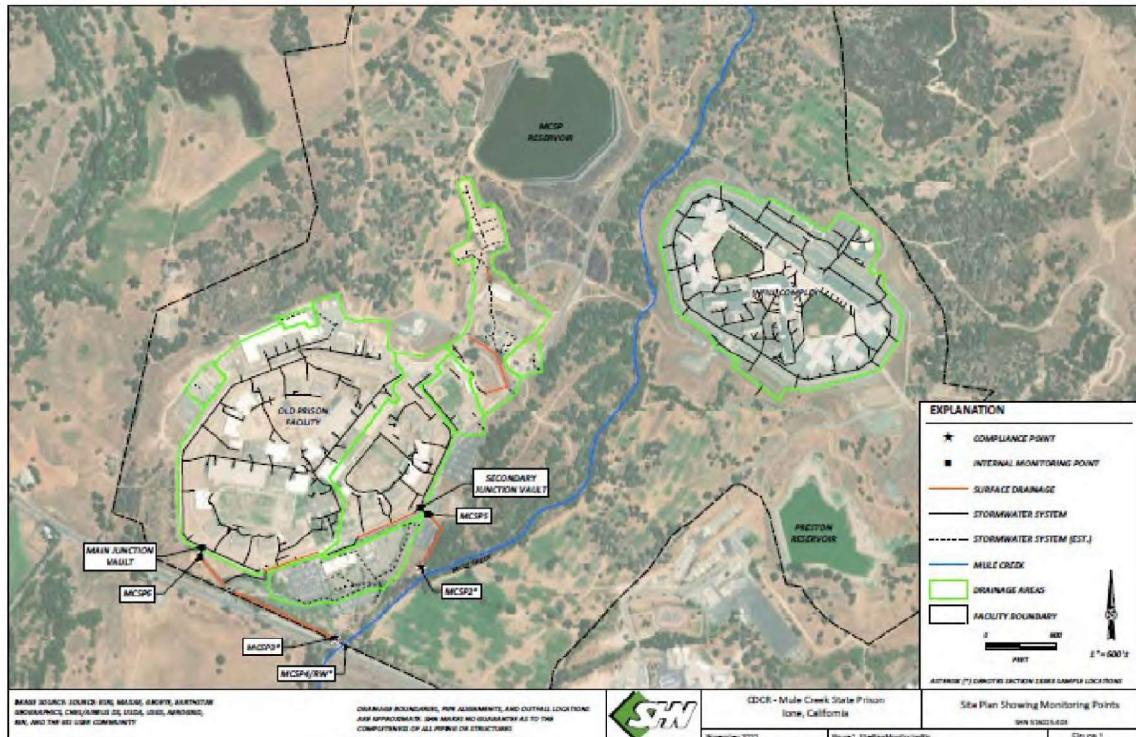
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APPENDIX 1 – Main Complex Drainage Areas Map – From SHN Report, Revised Stormwater Collection System Investigation Report of Findings p.131.



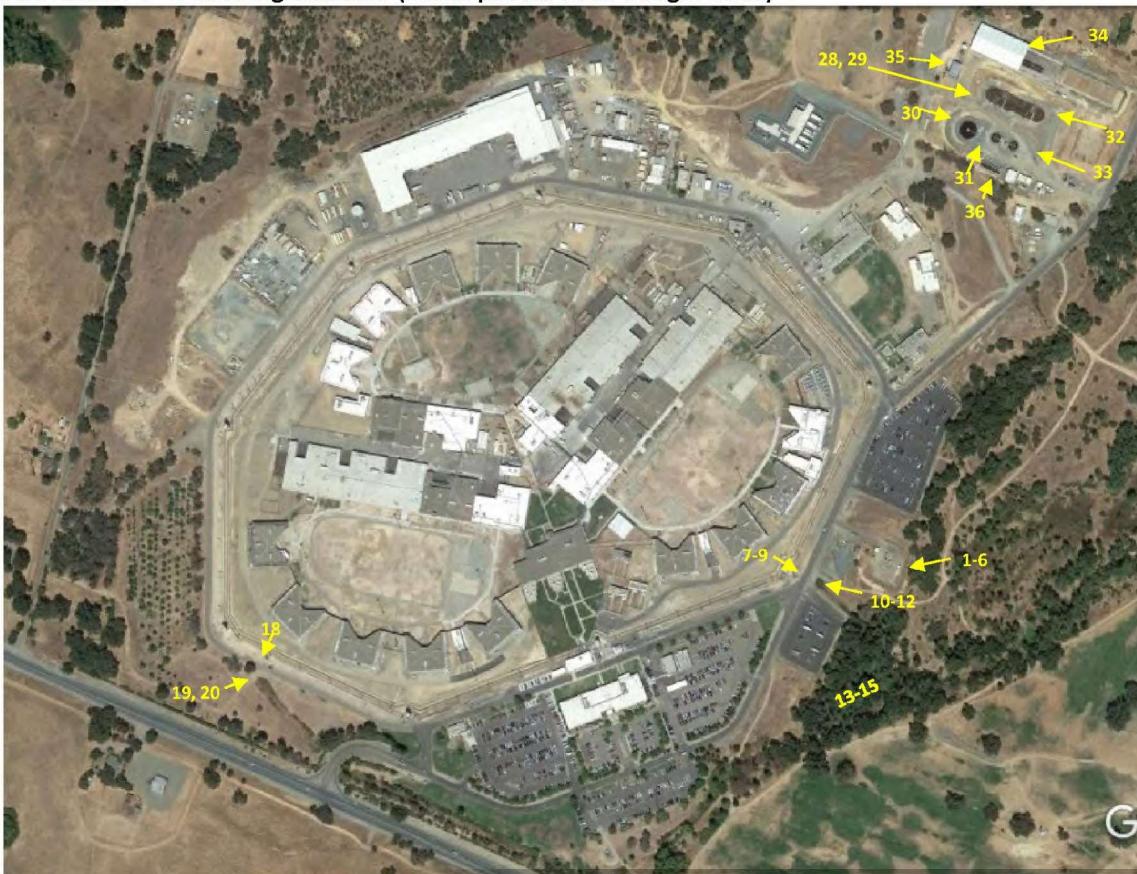
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APPENDIX 2 – Site plan showing monitoring points – From SHN Report, *Weekly Status Report* (week ending November 20, 2020), p.2



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APPENDIX 3 – Photo log locations (Aerial photos from Google Earth)



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Appendix 4 -Photograph Log

The photographs were taken during the inspection by Inspector Tinger on November 19, 2020. Original copies of the photos are maintained by EPA Region 9.

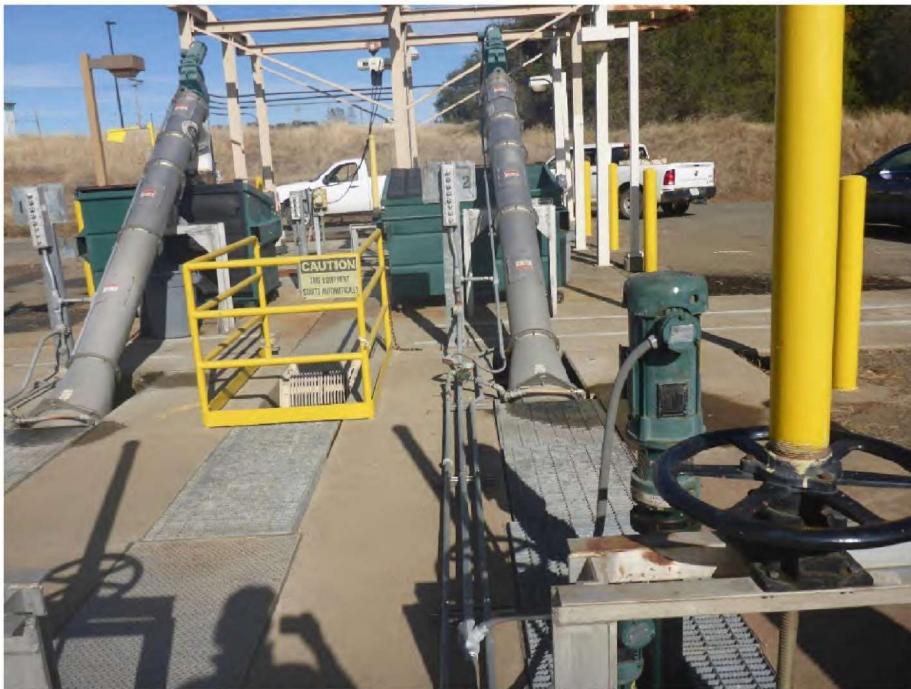


PHOTO 1 In-Channel Grinder and mechanical bar screens



PHOTO 2 – In-channel grinders and mechanical bar screens – Full extent

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PHOTO 3 – Closeup of In-channel Grinder

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PHOTO 4 – In-channel grinder and bar screen

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PHOTO 5 – Closeup of mechanical bar screen

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PHOTO 6 – Emergency spillway

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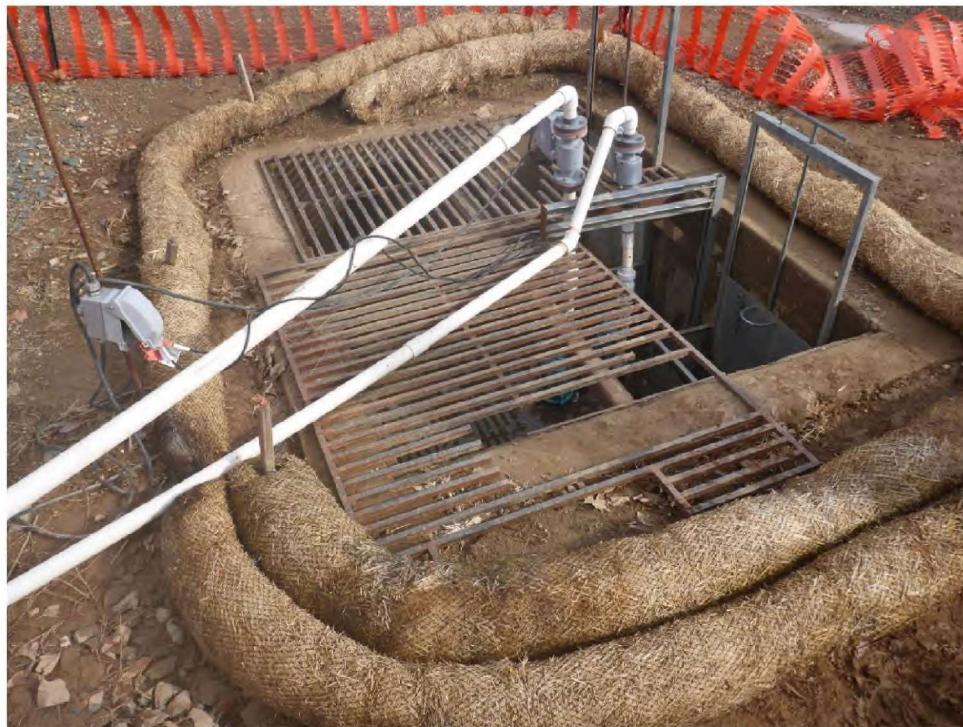


PHOTO 7 – Secondary Junction Vault



Photo 8 – Closeup of secondary junction vault with pumps, screens, and two closed slide gates.
Pumps were not operating at time of observation.

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PHOTO 9 – Flow meters installed at secondary junction vault



Photo 10- Secondary outfall and sample point MCSP-5

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PHOTO 11- Closeup of secondary outfall



PHOTO 12 – Automatic sampler sampling the secondary outfall at point MCSP-5.

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PHOTO 13 – Autosampler at MCSP-2



PHOTO 14 – Drainage channel with water

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PHOTO 15- Drainage channel with water at point of t-connection to other drainage channel



PHOTO 16 – MCSP-3 Point of compliance

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PHOTO 17 – Compliance point MCSP-3. Bridge connecting to Mule Creek in back center of photo.



PHOTO 18- Main Junction Vault

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PHOTO 19 – Main outfall with autosampler point MCSP-6



PHOTO 20 – Drainage channel reach directly beyond main outfall leading to MCSP-3

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PHOTO 21 – Pump station manifold

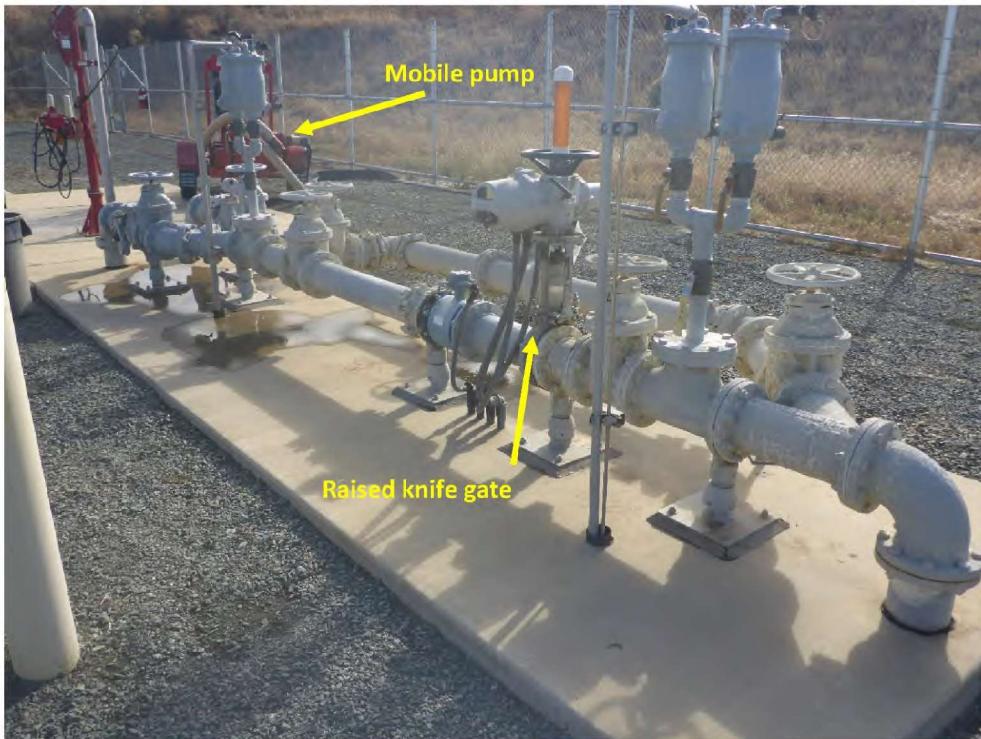


PHOTO 22- Pump station manifold

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PHOTO 23- Knife gate manually place in the “open” position



PHOTO 24 – Emergency valve in berm where August 11, 2020 SSO flowed through

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PHOTO 25 – Area August 11, 2020 SSO flowed to



PHOTO 26 – Creek bed where SSO flowed to and fluid was recovered

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PHOTO 27 – Stormwater pond



PHOTO 28 – Oxidation ditch

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PHOTO 29 – Aeration channel



PHOTO 30 – Clarifier #3

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PHOTO 31 – Clarifier #2 (out of service)



PHOTO 32 – Oxidation and aeration process

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PHOTO 33 – Clarifiers



PHOTO 34 – Covered sludge drying bed

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PHOTO 35 – Belt press

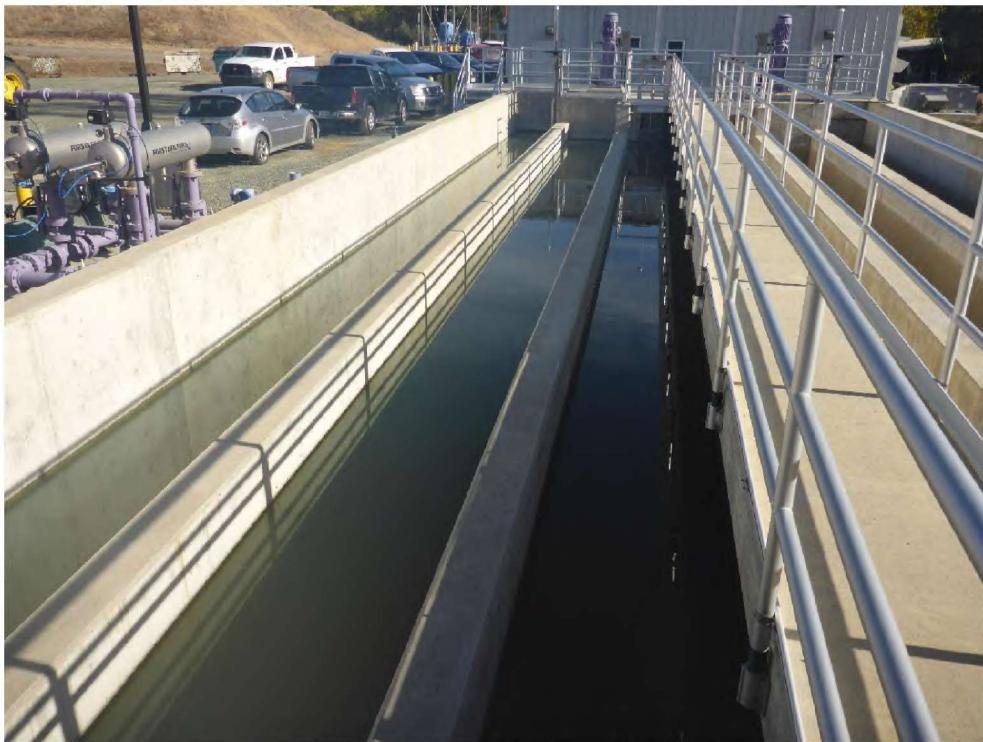


PHOTO 36 – Chlorine contact chamber

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PHOTO 37 – LAA #7



PHOTO 38 – Outfall point under bridge where MCSP drainage joins Mule Creek

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PHOTO 39 - Outfall point under bridge where MCSP drainage joins Mule Creek

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APPENDIX 5 – MCSP Response sent by Chief Engineer Estevan Fregeau to EPA on December 8, 2020 in response to EPA request for documentation on how 3/10" in 24hrs or 1/10" hour was determined as rates to trigger opening of slide gates during a rain event

"The 3/10" in 24hrs or 1/10" calculation was make based on the effect the additional water would have on the Waste Water Plant.

Based on the acreage of Mule Creek Prison "within the secured perimeter" roughly 60 acres. For every inch of rain we receive it would equal around 1.629 Million Gallons.

Currently Mule Creek Prison is designed for .74MGD Average dry weather flow "ADWF" and 2.2MGD Peak Wet Weather Flow "PWWF". Although the WWTP could handle 1" of rain for a day hydraulically it cannot handle it biologically. Storm water can lower the temperature in the aeration basin "Oxidation Ditch" to the range of 60°F to 65°F normally the temperature ranges from 65°F during winter and 80°F during summer. This lower temperature affects the biological activity by hindering the growth and activity. To keep the WWTP treatment process stable at the lower temperatures it is common practice to increase the Mean Cell Residence Time "MCRT" which we do currently. Typical ranges for Mule Creek WWTP is 17 day during summer and 20 day during winter. To keep a higher MCRT during a storm event is nearly impossible due to the slug of high flows and suspended solids washing out thru the effluent of the clarifier. The high flow of storm water has very little to no BOD and a high solids containing mostly inorganics "dirt" this causes the plant to have a higher than normal effluent suspended solids. The high solids/ high flow in the effluent adds to the difficulty of reaching an acceptable level of disinfection. The lack of BOD lowers the F/M ratio to a range where the remaining biological activity is pushed to starvation and could eventually die off. The high solids/ high flow in the effluent adds to the difficulty of reaching an acceptable level of disinfection. To take in storm water during a rain event would cause the WWTP to not be able to treat the wastewater effectively from Mule Creek/Infill Complex and violate on effluent limitations per the WDR."

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APPENDIX 6 – Excerpt of SHN Weekly Status Report – Week ending November 20, 2020



Phone: (530) 221-5424 Email: info@shn-engr.com Web: shn-engr.com
350 Hartnell Avenue, Suite B, Redding, CA 96002-1875

Reference: 516025.100

December 4, 2020

Kenny Croyle
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive #200
Rancho Cordova, CA 95670

Subject: Weekly Status Report (week ending November 20, 2020), Mule Creek State Prison, Amador County, California

Dear Kenny Croyle:

In accordance with Water Code Section 13267 Order (Order) issued for the Mule Creek State Prison (MCSP), this report summarizes site monitoring activities conducted during the week ending November 20, 2020.

1. Tabulated results, along with lab reports, for each daily sampling event during that reporting week.

Attachment 1 presents summary tables of data received from the laboratory as of December 2, 2020. Laboratory analytical reports for the November reporting period will be included in the monthly status report, which will be submitted by January 1, 2021.

2. The daily totalized volume measurements of non-stormwater collected out of the entire stormwater system, broken down by discharge point. The flow was measured with a calibrated flow meter.

The volume of non-stormwater is divided into two loads for each monitoring location: 1) non-stormwater flow pumped to the wastewater treatment plant; and 2) non-stormwater flow passing through the internal monitoring locations at MCSP5 and MCSP6.

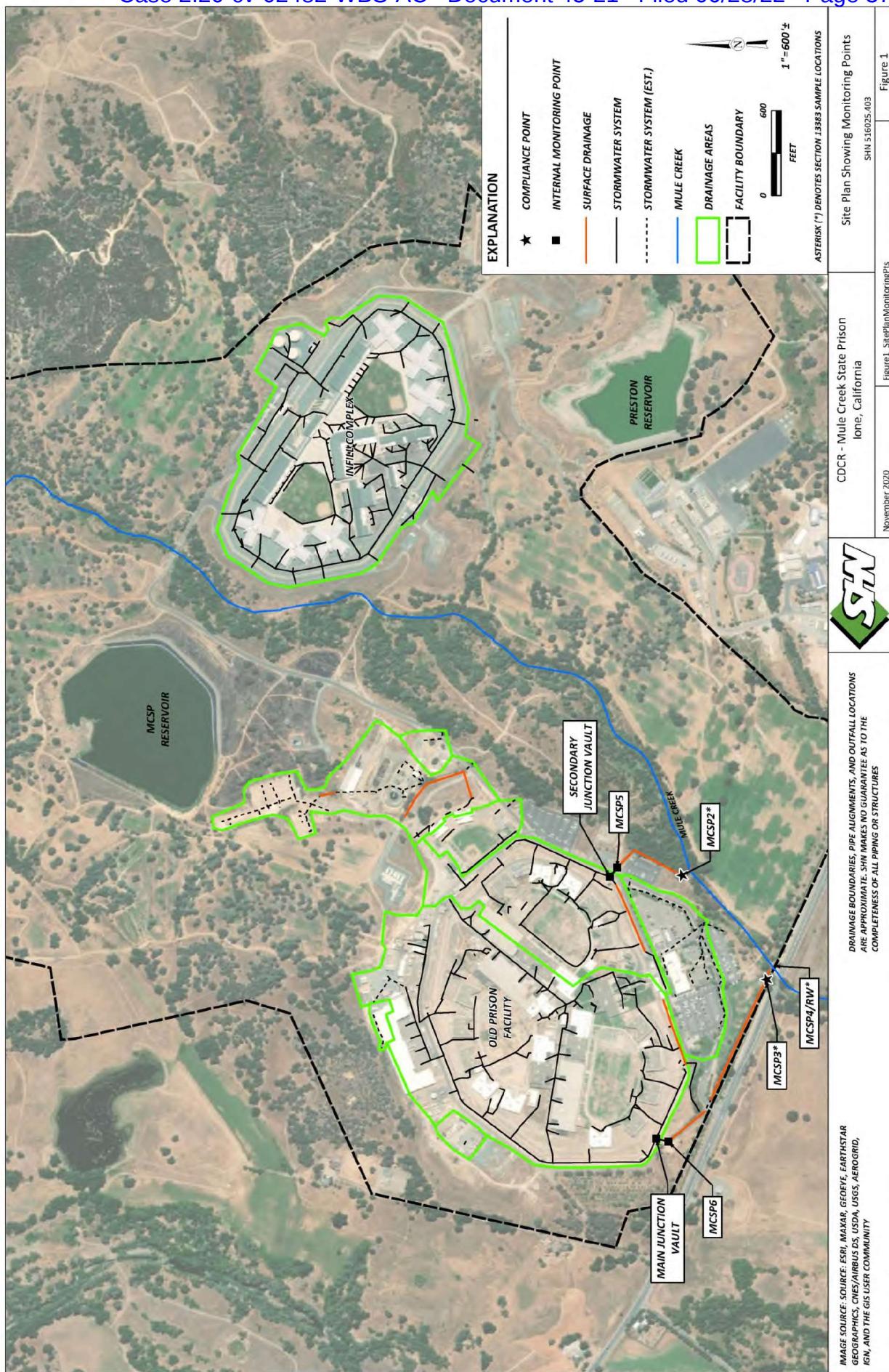
Non-stormwater is redirected to the wastewater treatment plant by way of four sump pumps: two at the Main Junction Vault (Tower 3) and two at the Secondary Junction Vault (Tower 9). Daily flow readings are recorded and used to calculate volume of non-stormwater redirected to the wastewater treatment plant. Internal monitoring points and compliance point locations are shown in Figure 1. Historical flow data is presented in Attachment 1. See Attachment 2 for weekly email correspondence.

Table 1 presents the flows entering the wastewater treatment plant. The total non-stormwater pumped to the wastewater treatment plant from the storm drain system for this week is **40,969 gallons** (5,853 gallons daily average).



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Kenny Croyle

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December 4, 2020

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**Table 1. Total Water Flow Entering the Wastewater Plant; Week Ending November 20, 2020
Mule Creek State Prison, Amador County, California**

Internal Monitoring Points				Total Gallons	
Main Junction Vault ¹		Secondary Junction Vault ²			
Pump #5	Pump #6	Pump #2	Pump #3		
7,399	16,243	14,806	2,521	40,969	
1. Formerly referred to as Main Outfall 2. Formerly referred to as Secondary Outfall					

During the week ending November 20, 2020, the total flow passing through internal monitoring points MCSP5 and MCSP6 was **1,119,250 gallons** (*159,893 gallons daily average*) (Table 2).

**Table 2. Total Flow Passing Through MCSP5 and MCSP6; Week Ending November 20, 2020
Mule Creek State Prison, Amador County, California**

Main Internal Monitoring Point		Secondary Internal Monitoring Point		Total Gallons	
MCSP6		MCSP5			
Flowmeter #1	Flowmeter #2	Flowmeter #3	Flowmeter #4		
215,860	549,933	120,205	233,252	1,119,250	

Inspections of internal monitoring points MCSP5 and MCSP6 and associated downstream compliance points MCSP2 and MCSP3 were performed daily. Compliance point MCSP2 is in a constructed, vegetated swale located approximately 630 feet downgradient of facility internal monitoring point MCSP5. Compliance point MCSP3 is in a constructed, vegetated swale located approximately 1,500 feet downgradient of facility internal monitoring point MCSP6. Visual flow observations are presented in Table 3. See Attachment 2 for daily photographs of compliance points MCSP2 and MCSP3.

**Table 3. Visual Flow Observations; Week Ending November 20, 2020
Mule Creek State Prison, Amador County, California**

Compliance Points		Internal Monitoring Points	
MCSP2	MCSP3	MCSP5	MCSP6
Flow?	Flow?	Flow?	Flow?
Yes	Yes	Yes	Yes

3. The amount of rainfall that fell over the prison.

0.74 inches of rainfall occurred during the week ending November 20, 2020.

4. A description of any changes, improvements, or upgrades that occur.

Irrigation of MCSP ended as of November 11, 2020, and the valves remain closed. For the week ending November 20, 2020, the total flow was **50,550 gallons** (*7,221 gallons daily average*).



Kenny Croyle

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Page 3

5. Notes on any changes at the wastewater treatment plant in terms of effluent quality and treatment effectiveness.

The performance at the wastewater treatment plant is normal. Wasting is also normal, and the activity of the microorganisms is normal. Flows have returned to past levels, and the plant remains stable. The daily monitoring of parameters and sludge health indicate the plant is operating normally (Attachment 2).

6. Any other additional finding or observations.

The gates from the storm system to Mule creek are being monitored and are opened or closed depending on the rain events to prevent flooding of the Prison.

On November 20, 2020, notification of stormwater release to Mule Creek was submitted to the Cal-OES (Report of Discharge #20-647). Main outfall and the secondary outfall gates were opened at 3:00 p.m. on Tuesday, November 17, 2020, and closed at 7:20 a.m. on Thursday, November 20, 2020. Approximately 1,007,681 gallons of stormwater was discharged.

If you have any questions, please call me at (530) 221-5424 or Mike Foget at (707) 441-8855.

Sincerely,

SHN

 12/4/2020
ROBERT WILLIAMS HESS EXP 9/22
No. 7403
STATE OF CALIFORNIA

Robert Hess, PG #7403
Project Geologist

RWH/DMW:dmw

Attachments: 1. Current and Historical Data
2. Correspondence



\Redding\Projects\2016\516025-mule-creek-SP\100-Stormwater\PUBS\rpts\20201204-WeeklyStatusRpt-20NOV20.docx

MCSPI0033009

APPENDIX 7 - Excerpt of Spill Report from August 11, 2020 spill at pump station

**MULE CREEK STATE PRISON
SPILL REPORT FORM**

Immediately upon notification of a sewage/tailwater runoff spill, a spill report form shall be started. This is to properly document the date, time, and reporting timeframes to the required State/County agencies. A completed spill report form shall be submitted to Plant Operations Department, ~~no later than 24 hours~~ after the spill has occurred.

DATE: 8/11/20 TIME: 11:20 NAME/TITLE: Esteren Fregen Chief Engineer

LOCATION (Be Specific): MCIC lift station

DESCRIPTION OF SPILL (Type, amount, how contained, etc) The PLC controlling

The lift station faulted, leaving the knife gate closed while the pumps try to pump down the wetwells an estimated 14,000 gallons spilled based on scad trends. The spill reached the Dry creek bed, but did not leave the grounds.

Use a separate piece of paper if necessary

CLEAN-UP PROCEDURES (Describe how spill was cleaned-up): using a

2" Trash pump at 185GPM for about 60min 11,100 gallons were pumped back to the lift station. Also using a 500 gallon Vac Truck also 500 gallon receptors out of the catch basin and dry creek bed. For a total of 18,600.

Use a separate piece of paper if necessary

Spill Notification Report

Attention: Kenny Croyle

Discharger: Mule Creek State Prison
Name of Facility: Mule Creek WWTP
WDRs: Order Number: RS-2015-0129
CIWIQS Place ID: 241842
County: Amador

I am hereby submitting to the Central Valley Water Board the following information:

Spill Description:

Location of spill (address):
1004 Hwy 104 Ione, Ca. 95640

Map of area affected by spill (please attach):

Date and time spill was discovered:

Based on SCADA the PLC for MCIC faulted at 7:00 PM on Monday August 10th 2020. It was not discovered till Tuesday, August 11th, 2020; approximately 11:15 AM

Time discharge was ceased:

11:30 AM

Cause of spill:

The PLC "Allen-Bradley Micro Logix 1400" faulted. The PLC controls all pump operations, alarms and the knife gate. With the PLC faulted we were not able to receive any alarms to notify us of a problem. There is a redundant float system that was controlling the pumps at the time but unable to pump the wetwell down due to the knife gate closed.

Estimated volume spilled:

Based on previous day flows I estimated we were under the "normal" flow amount about 42,227 gallons.

Was the spill contained on site?

Yes it did not leave the property of Mule Creek State Prison.

Did spill reach any surface water drainages?

Yes the spill reached Mule Creek located directly below MCIC lift station.

Description of cleanup procedures (please attach post cleanup photographs):

Using a 500 gallon Vacuum excavator trailer we were able to recapture 2500 gallons from Mule Creek. Directly uphill of Mule Creek towards MCIC lift station there is a catch basin and a slight berm that detained some of the spill, which we used a Honda WT20X Trash Pump 2" rated at 185GPM for about 60mins to recover 11,100 gallons back into the MCIC lift station. The total amount recovered is 13,600 gallons.

Corrective Actions Taken to Prevent Future Spills:

Fully describe corrective actions taken to prevent re-occurrence of spills. These actions may include operational and mechanical improvements to the facility. If the improvements have not already been implemented then a schedule for implementing the corrective actions shall be included with this report. If additional room is necessary, please attach the corrective actions description and implementation schedule to this Spill Notification Report.

We will install a float activated standalone alarm system that will include a visual "red light beacon" and an audible alarm to notify the guard tower that is located approximately 360 feet from MCIC lift station. This will be implemented as soon as possible.

Certification Statement:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

X

Anthony Stark

Phone: (209)247-4911 ext. 7380

Printed Name:

Anthony Stark

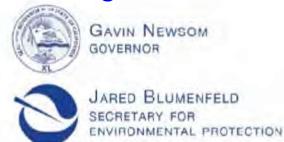
Date: 8-13-20

Electronic Report Submittal:

To submit the electronic reports please do the following:

1. First make a PDF copy of your report and include this form as the first page of the report.
2. Attach the PDF file to the email.
3. Send the email and PDF attachment to centralvalleysacramento@waterboards.ca.gov
(Please note that in order to ensure your reports are cataloged correctly and routed to the appropriate Regional Board staff, only one report/attachment shall be included with each email.)

EXHIBIT “23”



Central Valley Regional Water Quality Control Board

11 April 2022

Patrick Covello, Warden
Mule Creek State Prison
P.O. Box 409099
Ione, CA 95640
Via E-mail: Patrick.Covello@cdcr.ca.gov

COMMENTS TO THE NON-STORM WATER DISCHARGE ELIMINATION PLAN; CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION, MULE CREEK STATE PRISON, WDID#: 5S03M2000307, AMADOR COUNTY

The California Department of Corrections and Rehabilitation (Permittee) is currently enrolled under the National Pollutant Discharge Elimination System (NPDES) General Permit for Waste Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems, Water Quality Order 2013-0001-DWQ, as amended (Small MS4 General Permit) for Mule Creek State Prison (MCSP).

On 22 December 2020, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) issued the Permittee a Water Code Section 13383 Order to Monitor Discharges to Surface Water (13383 Order). Due to concerns regarding excessive dry weather flows measured at internal flow monitoring locations within the municipal separate storm sewer system (MS4) and consistent with Section B.3 of the Small MS4 General Permit, the 13383 Order required the submittal of a Non-Storm Water Discharge Report (Report). The Report was required to either demonstrate compliance with the Small MS4 General Permit Discharge Prohibitions or, if the non-storm water discharge is not in compliance with the Discharge Prohibitions, include a proposed plan—subject to Central Valley Water Board staff approval—to eliminate the non-storm water discharge.

The Permittee submitted the Report on 1 February 2021 in compliance with the 13383 Order. Based on the Permittee's Report, Central Valley Water Board staff determined that the irrigation runoff (i.e., potable water from the landscaped areas) does not meet the Small MS4 General Permit's definition of incidental runoff because the runoff is due to defects in the irrigation system and that there may be occasional discharges of excessive irrigation runoff to Mule Creek. The Small MS4 General Permit and the 13383 Order requires the Permittee to submit a plan to eliminate the non-storm water runoff. The Permittee submitted the Non-Storm Water Discharge Elimination Plan (Plan) on 1 September 2021.

MARK BRADFORD, CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

11020 Sun Center Drive #200, Rancho Cordova, CA 95670 | www.waterboards.ca.gov/centralvalley

Staff has reviewed the Plan and has the following comments:

1. Details of Best Management Practices (BMPs)

The Plan must include specific details of the BMPs, as noted below:

- a. The Plan must clearly identify which of the six (6) BMPs under Item (a) of the Plan are permanent or interim BMPs and the specific locations where these BMPs will be implemented.
- b. Float-controlled pumps were added to both outfalls at MCSP5 and MCSP6 to return any non-storm water flows to the onsite wastewater treatment plant. Please provide the following additional information about the float-controlled pumps:
 - a description of how and when the float pumps are set (i.e., elevations/depths) to divert the discharge to the wastewater treatment plant and when the pumps discharge to Mule Creek;
 - dates the pumps were installed; and
 - an operation and maintenance plan describing the methods and procedures that will be used to ensure the pumps are operated and maintained (e.g., database with preventative maintenance schedule, etc.) properly.
- c. Flow meters have been installed at MCSP5 and MCSP6 to log flow volumes discharged to Mule Creek through the outfalls and volumes discharged to the wastewater treatment plant for a total of four flow meters. In addition, a flow meter will be installed on the main irrigation water supply (i.e., potable water) to record the amount of water being used by the irrigation system. Please include the following additional information about the five (5) flow meters:
 - dates the MCSP5 and MCSP6 flow meters were installed;
 - a schedule of when the main irrigation water supply flow meter will be installed;
 - an operation and maintenance plan that includes the following:
 1. manufacturer specifications for the flow meters and monitoring equipment;
 2. a description of how flow will be monitored (i.e., manual or automated) with schedule;
 3. a preventative maintenance schedule; and
 4. methods and procedures that will be used to ensure the flow meters and associated monitoring equipment are operated and maintained properly.

- d. The Permittee states that it is currently in the process of installing Permanent Monitoring Structures at MCSP2 and MCSP3 to accurately monitor discharges directly to Mule Creek. Please include the following additional information about the Permanent Monitoring Structures:
 - a list of specific project tasks and schedule for the installation of the Permanent Monitoring Structures; and
 - an operation and maintenance plan that includes the following:
 1. manufacturer specifications for the flow meters and associated monitoring equipment;
 2. description of how flow will be monitored (i.e., manual or automated) with schedule;
 3. a preventative maintenance schedule; and
 4. methods and procedures that will be used to ensure the flow meters and associated monitoring equipment are operated and maintained properly.
- 2. Details of interim actions to mitigate the impact of non-storm water discharges to Mule Creek.**
- The Plan must include specific details of interim actions as specified below:
- a. The Permittee reports that the irrigation schedule has been adjusted for MCSP for all landscaped areas around administration buildings from daily to three days a week for 20 to 23 minutes per zone. Please describe how this new schedule was determined, including any visual inspections conducted to verify this adjustment does not result in excessive overspray. In addition, please indicate whether this schedule will be year-round or seasonal.
 - b. The adjustment of the irrigation schedule and cessation of irrigation in areas of the facility are identified in this section of the Plan as an interim action. Please describe how this interim action will be monitored to confirm discharge is not entering Mule Creek, along with corrective action measures that will be taken if monitoring still shows discharge.
 - c. The Permittee states that MCSP staff visually inspects and photo documents MCSP2, MCSP3, MCSP5, and MCSP6 and keeps a record of whether flow is present at each location. It is unclear whether MCSP staff checks these points regularly, including in the dry season when irrigation is occurring, or only when they observe flowing or ponding more than 72 hours after a storm event. With the installation of the Permanent Monitoring Structures and five new flow meters, please describe how all these tools and information will be used to proactively verify that excessive

non-stormwater discharge will be minimized or eliminated. Please note that sampling under the MS4 and 13383 Order is required when discharge is observed at any compliance point and is used to detect illicit discharges once they occur. The purpose of the interim actions is to proactively prevent such illicit discharges.

3. Implementation Schedule of the BMPs (both interim and permanent)

The Plan must include a detailed implementation schedule as specified below:

- a. Please provide the dates of implementation and/or proposed implementation schedule for the five flow meters and float-controlled pumps as described in 1.b and 1.c above.
- b. Please provide an updated schedule on the installation of the Permanent Monitoring Structures as described in 1.d above.

4. Date of expected compliance with the Discharge Prohibitions in the Small MS4 General Permit

- a. The Permittee states that the permanent mitigation is the installation of the new irrigation system as part of an Enhanced Compliance Action (ECA) that was attached to the Plan. Please note that the ECA is a voluntary project that is optional instead of paying the penalties in the settlement agreement. The ECA project is meant to go beyond what is required for regulatory compliance and was not meant to be a formally approved action, like a time schedule order. As such, the Permittee is still responsible for compliance with the Small MS4 General Permit until such time the voluntary project is installed. Please provide what additional and more immediate interim and permanent BMPs will be used to minimize or eliminate illicit discharges. For example, if there are known defects to the irrigation system that can be fixed more easily, please consider completing those repairs faster.

5. Certification

Please include the following Certification as required under the 13383 Order:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, include the possibility of fine and imprisonment.

Please revise the Non-Stormwater Discharge Report to address the comments in this letter and submit it by 16 May 2022.

If you have any questions, please contact Elizabeth Lee at
Elizabeth.Lee@waterboards.ca.gov.

 Digitally signed by Elizabeth M.
Lee
Date: 2022.04.11 16:35:12 -07'00'

Elizabeth M. Lee, P.E.
Senior Water Resource Control Engineer
Municipal Storm Water Program

cc: [via E-mail]
John Tinger, USEPA, San Francisco (Tinger.John@epa.gov)
Grant Scavello, USEPA, San Francisco (Scavello.Grant@epa.gov)
Nickolaus Knight, Office of Enforcement, State Water Resources Control Board
JJ Baum, Central Valley Regional Water Quality Control Board, Rancho Cordova
Bryan Smith, Central Valley Regional Water Quality Control Board, Redding
Kari Holmes, Central Valley Regional Water Quality Control Board, Rancho
Cordova
James Marshall, Central Valley Regional Water Quality Control Board, Rancho
Cordova
Rob Busby, Central Valley Regional Water Quality Control Board, Rancho
Cordova
Howard Hold, Central Valley Regional Water Quality Control Board, Rancho
Cordova
Kenny Croyle, Central Valley Regional Water Quality Control Board, Rancho
Cordova
Scott Armstrong, Central Valley Regional Water Quality Control Board, Rancho
Cordova
Lixin Fu, Central Valley Regional Water Quality Control Board, Rancho Cordova
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Stacy Rhoades, City of Ione, Ione (Rhoades@ione-ca.com)
Diane Wratten, City of Ione, Ione (DWratten@ione-ca.com)
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Amy Gedney, ARSA, City of Sutter Creek, Sutter Creek
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Jennifer Buckman, Bartkiewicz, Kronick & Shanahan, APC, Sacramento
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Bill Jennings, California Sportfishing Protection Alliance (deltakeep@me.com)
Jack Mitchell, Ledger Dispatch (jimitchell@ledger.news)
Greg Morris (greg8355@gmail.com)
Mike Forget, SNH Engineers (mfoget@snh-engr.com)
Rick Ferriera (rferriera@amadorwater.org)

EXHIBIT “24”



Central Valley Regional Water Quality Control Board

14 February 2018

CERTIFIED MAIL

91 7199 9991 7036 7027 5890

Joe A. Lizarraga, Warden
 California Department of Corrections
 Mule Creek State Prison
 P.O. Box 409099
 Ione, CA 95640

WATER CODE SECTION 13267 ORDER (ORDER) FOR TECHNICAL AND MONITORING REPORTS AND NOTICE OF VIOLATION FOR ILLEGAL DISCHARGE TO SURFACE WATER AND NON-COMPLIANCE WITH THE CONSTRUCTION STORM WATER PERMIT, CALIFORNIA DEPARTMENT OF CORRECTIONS—MULE CREEK STATE PRISON, AMADOR COUNTY

Mule Creek State Prison opened in June 1987, and since that time has been owned and operated by the California Department of Corrections (referred to as "Department" or "Discharger"). Through 2015, the Prison consisted of Facilities A, B, C, and their accompanying yards. These facilities are identified hereafter as the "Old Prison Facility". The Old Prison Facility accommodated approximately 2,800 inmates. In 2016, the prison expanded by constructing the 1,584-inmate Mule Creek Infill Complex (MCIC) on site.

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) regulates the treatment and disposal of domestic and prison industry wastewater from Mule Creek State Prison under Waste Discharge Requirements (WDRs) Order R5-2015-0129 and requires the Department to monitor underlying groundwater for contamination related to these treatment and disposal activities. The issues discussed in this 13267 Order for Technical and Monitoring Reports (13267 Order) are not described nor permitted by the current WDRs.

The Central Valley Water Board also regulates storm water discharges associated with both industrial and construction activities through two general permits adopted by the State Water Resources Control Board (State Water Board). The Discharger stated that it had an Industrial Storm Water Pollution Prevention Plan (SWPPP) for Mule Creek State Prison as required by the General Permit for Storm Water Discharges Associated with Industrial Activities, Order 2014-0057-DWQ (Industrial General Permit). However, Board staff found no evidence of this SWPPP in the Storm Water Multiple Application and Report Tracking System (SMARTS), nor any indication that the Discharger submitted a Notice of Intent to comply with the Industrial General Permit. Furthermore, with respect storm water discharges from construction activities, the Discharger also stated that it failed to obtain coverage under the General Permit for Storm Water Dischargers Associated with Construction and Land Disturbance Activities, Order 2009-0009-DWQ, as amended (Construction General Permit) for their Storm Drain System project, which is further discussed in this 13267 Order.

28 December 2017 Complaint:

On 28 December 2017, Board staff received a complaint via a phone call regarding the apparent illegal discharge of water of unknown origin directly into the newly constructed storm water pipeline which discharges directly into Mule Creek. The complainant stated that the discharge flows varied greatly, but had been occurring during every one of their numerous observations between August 2017 and January 2018. The complainant described the water being discharged as varying between clear and jet black, sometimes with solids, and sometimes steaming hot. These discharges occurred on a daily basis during both the wet season and dry season, regardless of precipitation or irrigation. Therefore, the source is presumed to be something other than stormwater or irrigation runoff.

4 January 2018 Inspection

Compliance and Enforcement staff from the WDRs and Storm Water Units inspected Mule Creek State Prison on 4 January 2018 in response to the complaint. See Attachments A and B for the related inspection reports and photo logs.

During the inspection, Board staff determined that the likely source of the water described in the complaint as discharging to Mule Creek was from a stormwater collection and conveyance system that surrounds the Old Prison Facility. Board staff also observed water discharging out of a lateral drain pipe into the storm water collection and conveyance system that surrounds the Old Prison Facility. This perimeter collection system eventually discharges directly to Mule Creek, which is a water of the State and the United States. To understand the threat of this discharge, Board staff collected a sample of the water from the lateral drain pipe (Sample named "Tower 4"). In addition, Board staff observed a small amount of water discharging from the common collection sump, through the culvert and unlined ditch, and into Mule Creek. Board staff also collected a sample from the common collection sump (Sample named "Junction"). The Laboratory results of these samples are included here as Attachment C, and summarized below.

The Discharger also informed Board staff that, during the construction project related to the stormwater collection and conveyance system, soil was excavated and stockpiled in a borrow area near guard tower 4. This soil had been in direct contact with the water discharged from the lateral drain pipes prior to being excavated.

Laboratory Results and Analysis of Discharge

The water quality samples collected by Board staff demonstrate that the water being discharged from the Old Prison Facility to the perimeter storm water collection system, and then into Mule Creek, is, at least partially, wastewater comingled with contaminated storm water and/or gray water. Table 1 summarizes the relevant laboratory results, which have already been sent to the Discharger.

Table 1: Laboratory Results from 4 January 2018 Samples

	Guard Tower 4 Sample	Common Sump Sample	Comparison Regulatory Values	Comparison Values and Sources
Oil and Grease (mg/L)	2.6	1.2	15	Annual Numerical Action Limit, Order 2014-0057-DWQ
MBAS (mg/L)	0.13	0.18	0.5	Drinking Water Standard: Secondary MCL ¹
Aluminum (mg/L)	2.9	3.7	1	Drinking Water Standard: Primary MCL ¹
Iron (mg/L)	1.9	3	0.3	Drinking Water Standard: Secondary MCL ¹
Total Phosphorus as P (mg/L)	0.35	0.87	0.1	USEPA Health Advisory
Orthophosphate as PO ₄ (mg/L)	0.89	2.3	N/A	Common Constituent Found in Sewage and Other Biological Decomposition
Total Coliforms (MPN/100ml)	>1600	>1600	>2.2	Section 64426.1, Title 22, CCR
E. Coli (MPN/100ml)	>1600	>1600	>2.2	Section 64426.1, Title 22, CCR
Fecal Coliforms (MPN/100ml)	>1600	>1600	>2.2	Section 64426.1, Title 22, CCR

¹ Title 22 California Code of Regulations (CCR), Division 4, Chapter 15

Other Areas of Concern

Storm Water Discharges:

The installation and grading associated with the Storm Drain System project generated excess soil, has been stockpiled along with the removed culverts in a borrow area near guard tower 4 (see Photo 6 of the Storm Water Inspection Report, Attachment A). Based on the sample results outlined above, any excavated soil from the storm water drainage area likely came into contact with wastewater and will need to be characterized for safe handling and proper disposal.

The storm water collection and conveyance system encircles the entire Old Prison Facility and discharges into Mule Creek. After review of Google Earth satellite views of the site, Board staff

has determined that there may be other points where the storm water collection and conveyance system discharges to Mule Creek. Therefore the entire storm water collection and conveyance system around the Old Prison Facility must be investigated and evaluated to identify all sources of the wastewater, stormwater, and graywater points of discharge into the current storm water pipeline.

Groundwater Impacts:

In 2006 Cease and Desist Order R5-2006-0130 was issued to the Discharger for, among other things, discharges of waste to surface water. Around the same time the Amador County Environmental Health Department conducted a study investigating the potential impacts of the Prison operations on Mule Creek and local groundwater. The investigation included sampling Mule Creek upstream and downstream of the Prison, and sampling seven domestic wells within a 1 mile radius. The results of this effort were reported two reports: *Mule Creek Water Quality Testing*¹ and *Mule Creek Area Ground and Surface Water Source Evaluation*². The reports found significant evidence of the Prison impacting surface water in Mule Creek, which supported the Cease and Desist Order. Because there were similar detections of wastewater constituents in the 4 January 2018 samples and what was reported in 2006, and Mule Creek appears to be a losing stream that is recharging the aquifer, groundwater sampling will be needed to understand the impacts from this pipeline.

Alleged Violations and Notice to Cease Illegal Discharge:

1. Unpermitted discharge of wastewater to Mule Creek

The discharges of wastewater observed during the 4 January 2018 inspection are not permitted by the Discharger's WDRs, Order R5-2015-0129. Specifically, Discharge Prohibition A.1. states, “[d]ischarges of wastes to surface waters or surface drainage courses is prohibited.” Furthermore, Discharge Prohibition A.4. states, “[d]ischarge of waste at a location or in a manner different from that described in the Findings is prohibited.” The observed discharge is an unpermitted discharge of pollutants in violation of section 301 of the Clean Water Act (33 U.S.C. § 1311) and California Water Code (Water Code) section 13350.

2. Failure to obtain coverage under the Construction General Permit and Industrial General Permit

Furthermore, both the Water Code and the Clean Water Act (CWA) require the Discharger obtain the appropriate permit coverage for discharges of storm water associated with industrial and/or construction activities.

¹ Mule Creek Water Quality Testing, Carlton Engineering Inc., Amador County Environmental Health, 6 December 2006

² Mule Creek Area Ground and Surface Water Source Evaluation, Carlton Engineering Inc., Amador County Environmental Health, 16 May 2007

The Central Valley Water Board staff issued a Notice of Non-Compliance (NONC) on 12 January 2018 regarding the Discharger's failure to obtain coverage under the Construction General Permit prior to commencing the Storm Drain System project. Coverage under the Construction General Permit is required where project activities, including clearing, grading, or excavation, result in a land disturbance of one or more acres, or where construction activities result in land disturbance of less than one acre, if the construction activity is part of a larger common plan of development. The Storm Drain System project disturbed greater than one acre of land at the facility. The NONC requires that the Discharger apply for coverage under the Construction General Permit no later than 12 February 2018. As of the date of this 13267 Order, the Discharger still has not applied for coverage or implemented adequate Best Management Practices (BMPs).

The Discharger also failed to obtain coverage under the Industrial General Permit, which is required for sites that engage industrial activities resulting in the discharge of industrial storm water to waters of the United States. The Discharger's failure to obtain coverage under the Construction General and Industrial General Permits constitute violations of Water Code and the Clean Water Act.

Based on these alleged violations and the laboratory results, Board staff notified the Discharger via email on 18 January 2018 stating:

"The discharge of this wastewater to Mule Creek must cease immediately. All water discharging from this [sic] drainpipes must be contained and properly disposed of at your POTW. No water form [sic] this pipeline may be discharged to land or to surface water without a permit. Furthermore, because this appears to be sewage, CDCR must prevent human contact with this wastewater."

CDCR may consider off hauling if you have capacity issues at your facilities wastewater plant. CDCR should collect a daily sample of the discharge from the point where the culverts meet and travel under the road, near Tower 3. The analysis should include the same constituents that were analyzed for in our analysis (see attached lab reports). Further investigation of the source and characterization of the waste will be required."

Discharger's Response

To date, the Discharger has ceased the discharge from the storm water collection and conveyance system between guard towers 1 and 6. The collected wastewater is being pumped from the common collection sump via a portable pump to a nearby sewer cleanout, to be treated at the on-site wastewater treatment plant. The Discharger collected one sample on 19 January 2018. The sample was analyzed for E.coli, fecal coliforms, and total coliforms, but not all constituents specified in Board staff's 18 January 2018 email. The sample was analyzed outside of the required hold time by almost 3 days, yet the sample still contained a reported total coliform value of 130 MPN/100ml, and fecal coliform and E.coli values of 30 MPN/100ml each. The Discharger attributed these results, and the results of the samples collected by Board staff,

to "construction activities, wildlife presence, and a 'flushing' effect of the recent storms". Board staff does not agree with this assessment.

Water Code Section 13267 Order for Technical Reports

Section 13267 of the California Water Code states, in part:

In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging...or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging... waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

Section 13268 of the California Water Code states, in part:

(a) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267...or falsifying and information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).

(b)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with section 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.

As part of the Central Valley Water Board's effort to protect water quality and investigate the Department's alleged unpermitted discharges and failures to act, the Central Valley Water Board requires the Department to submit information in the form of a technical report pursuant to Water Code section 13267. The burdens, including cost, of this report that the Central Valley Water Board requires bear a reasonable relationship to the need for the report and the benefits to be obtained by it. The requested information is necessary for the Central Valley Water Board to understand the scope and duration of the alleged violations and potential impacts to Mule Creek.

Pursuant to Water Code Section 13267, California Department of Corrections, Mule Creek State Prison shall submit the following technical reports:

- A. Beginning on **16 February 2018**, weekly status reports (via email) each Friday that include:

1. Tabulated results, along with all lab reports, for each daily sampling event during that reporting week.
 2. The daily totalized volume measurements of wastewater collected out of the entire storm water system, broken down by discharge point. The flow shall be measured with a calibrated flow meter.
 3. The amount of rain that fell over the prison.
 4. A description of any changes, improvements, or upgrades that occur.
 5. Notes on any changes at the wastewater treatment plant in terms of effluent quality and treatment effectiveness.
 6. Any other additional findings or observations.
- B. By **15 March 2018**, provide an *Interim Disposal Plan* for the wastewater collected daily in the storm water pipeline. If the plan is to continue to discharge to the facility's on-site wastewater treatment plant, the plan must include a statement that the facility has adequate treatment capacity to comply with Flow Limitations B.1 of WDR R5-2015-0129. This statement must be supported by calculations and signed and stamped by a California Registered Professional Engineer. The plan should include an implementation schedule.
- C. By **15 March 2018** the Discharger shall submit a *Monitoring Plan* which describes the items listed below. Until that Monitoring Plan is submitted and approved by Board staff, the Discharger will continue to collect any wastewater entering the storm water collection and conveyance system which encircles the entire Old Prison Facility and treat it at the on-site wastewater treatment plant. If it is determined that the onsite treatment plant does not have the capacity for this additional waste stream, the collected wastewater shall be trucked and hauled to a Publicly Owned Treatment Works. The Monitoring Plan should be developed in conjunction with the *Interim Disposal Plan*. Contents of the Monitoring Plan shall include:
1. The locations where samples will be collected from.
 2. A map of the sampling locations.
 3. The frequency that samples will be collected.
 4. A sampling plan, including a list of the analytes as well as the methods to be used to collect, store, and transport samples to a laboratory certified by the Environmental Laboratory Accreditation Program. These constituents should be based on the storm water and wastewater flows coming from the Old Prison Facility, including from all current and historical industrial activities such as meat processing, dry cleaning, laundry facilities, equipment wash down, and domestic wastewater.
 5. An implementation schedule.
- D. By **15 March 2018** the Discharger shall submit a plan to sample all domestic and municipal wells within the area bound by Highway 104 to the north, Sutter Creek to the east and south, and Dutschke Road to the west. The sampling shall be conducted without any cost to the landowners/well owner. The plan must include a sampling and analysis plan and a contingency plan if the well is impacted above the maximum contaminant level for each individual identified constituent of concern. Wells must be sampled, at a minimum, quarterly for one year. Samples shall be analyzed for all constituents identified in the *Monitoring Plan* above. The plan should include an implementation schedule.

- E. By 15 March 2018 the Discharger shall submit a *Storm Water Collection System Investigation* work plan, signed and stamped by a California Registered Professional Engineer, that includes:
1. A complete description of the existing storm water collection system as it is currently understood, including as-built drawings stamped by a Professional Engineer for the entire Prison, including the Old Prison Facility and the MCIC.
 2. A complete map of all pipes and drain inlets in the Old Prison facility, mapped from the drains to Mule Creek.
 3. The maintenance log for the Old Facility plumbing system which documents all repairs and changes since the time of construction.
 4. A timeline of any changes made to the system or related plumbing from the time it was built.
 5. A work plan to investigate the source of the wastewater entering the storm water collection system. This investigation should examine all drain pipes and determine their origin and if there are cross connections or pipe breaks for the entire length of the system. The work plan shall explain in detail the methodology for how investigating the pipelines will occur.
 6. Propose a list of water quality constituents contained in the wastewater being discharged to the storm water collection system using a comprehensive laboratory analysis and extended sampling regimen.
 7. A plan to characterize the soil excavated during construction of the Storm Drain System project is contaminated.
 8. A plan to characterize the soil around the Storm Drain System project is contaminated.
 9. All recent and historical storm water data collected from the new MCIC storm water system discharge points.
 10. An implementation schedule, ending with the submittal of Item F below.
- F. By 15 April 2018, the Discharger shall submit a *Storm Water Collection System Investigation Findings Report*, signed and stamped by a California Registered Professional Engineer, that includes:
1. A description of all sources of discharge for each drain pipe connected to the storm water collection system.
 2. An estimation of when any cross connection, pipe break, or other issue occurred and began causing the release of waste constituents to the stormwater collection and conveyance system.
 3. Results from all samples, flow measurements (see Item A.2), visual observations, photos, videos, and field logs collected during the investigation.
 4. Based on the above information, an estimate of how much water was discharged from the stormwater collection system since the first time waste constituents were introduced into the system.
 5. A revised complete map of all pipes and drain inlets in the Old Prison facility, mapped from the drains to Mule Creek (see Item E.2).

- G. By **15 April 2018**, the Discharger shall submit a *Final Disposal Plan* (Plan), signed and stamped by a California Registered Professional Engineer. The Plan must include all work necessary to implement the permanent solution to addressing the comingled flows in the stormwater collection and conveyance system. A schedule to complete the work shall be proposed in the Plan. Treating and disposing of the new waste stream on-site using the existing treatment plant and land application areas would constitute a material change. Therefore if the Discharger elects to discharge to the facility's on-site wastewater treatment plant, then the California Department of Corrections, Mule Creek State Prison must submit an Amended Report of Waste Discharge (RWD) that describes the new waste stream and how it is collected, conveyed, treated, and disposed. The RWD must also include a *Water Balance Report*, signed and stamped by a California Registered Professional Engineer, demonstrating whether or not the facility has adequate treatment, storage, and disposal capacity to comply with Flow Limitations B.1 and Discharge Specification D.7 of the WDRs. If required, the *Water Balance Report* shall include:
1. An updated and calibrated water balance that follows the requirements of the enclosed Requirements for Water Balance Update and Calibration (Attachment D). The water balance should determine if the Mule Creek Wastewater Treatment Plant has the required treatment and storage to accommodate the additional wastewater flows, design seasonal precipitation, and ancillary inflow and infiltration during the winter months. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.
 2. Increased flows diverted from the storm water collection and conveyance system of the Old Prison Facility should be estimated using daily flow data collected from the flow meter(s) required to be installed by this Order.
 3. The water balance should be supported by any Inflow and Infiltration (I&I) studies, collection systems inspections and maintenance records, hydraulic capacity studies, and documentation of any upgrades or repairs to the collection system, the treatment plant or the disposal system. All supporting documents should be submitted with the new water balance for review.
 4. A discussion with an evaluation of the ability of the storage reservoir and disposal area to store and dispose of wastewater in compliance with the WDRs Discharge Prohibitions, Discharge Specifications, and Provisions.
 5. A comparison of actual rainfall data from a reliable cited source to the 100 year annual return period precipitation total. The 100 year annual return period precipitation total should be either cited from the WDRs or from a reliable source.
 6. If the resulting water balance shows that the facility does not have the capacity to meet these requirements, a work plan and timeline to reduce influent flow or increase facility capacity must be submitted along with the water balance (see Attachment D). All improvements must be in place by 1 October 2018. Until these improvements are made, excess flows should be tanked and hauled offsite to an appropriate disposal facility.

Any technical report required herein that involves planning, investigation, evaluation, engineering design, or other work requiring interpretation and proper application of engineering or geologic sciences shall be prepared by or under the direction of persons registered to

practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1. As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

Failure to submit the technical report, or submittal of an incomplete report, may subject the District to enforcement action by the Central Valley Water Board, including the imposition of administrative civil liability or referral of the matter to the Attorney General's Office.

Please note we have transitioned to a paperless office. Therefore, all reports shall be converted to a searchable Portable Document Format (PDF) file and submitted by email to centralvalleysacramento@waterboards.ca.gov. To ensure that each submitted report is routed to the appropriate staff, please include the following information in the body of the email: Attn: Kenny Croyle, Compliance Unit, Non-15, the Date and Title of the report, and the facility's CIWQS place ID (CW 241842).

If you have questions, please contact Kenny Croyle at kenny.croyle@waterboards.ca.gov or (916) 464-4676.

Original Signed By

ANDREW ALTEVOGT
Assistant Executive Officer

Enclosed: Attachment A: Stormwater C/E Unit Inspection Report and Photo Log
Attachment B: Non-15 C/E Unit Inspection Report and Photo Log
Attachment C: Laboratory Results for Samples Collected During 4 January 2018
Attachment D: Requirements for Water Balance Update and Calibration

cc: Nickolaus Knight, State Water Board Office of Enforcement, Sacramento
Isabel Baer, California Department of Fish and Wildlife, Rancho Cordova
Rich Muhl, Regional Water Quality Control Board, Rancho Cordova
Scott Armstrong, Regional Water Quality Control Board, Rancho Cordova
Rob L'Heureux, Regional Water Quality Control Board, Rancho Cordova

Terry Bettencourt, Construction and Maintenance Supervisor, Mule Creek State Prison, Ione
Deborah Hysen, Director of Facilities and Construction Management, Mule Creek State
Prison, Ione
Doug Finch, Chief Engineer, Mule Creek State Prison, Ione
Ron Hess, Correctional Plant Supervisor, Mule Creek State Prison, Ione
James "Bo" Dahlberg, Sewage Plant Supervisor, Mule Creek State Prison, Ione
Mike Israel, Amador County Dept. of Environmental Health, Jackson